Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

REMARKS

In this Office Action, the Examiner objected to the ABSTRACT. The Examiner also rejected Claims 1, 4 - 6, 9 - 11, 14 - 16, 19 and 20 under 35 U.S.C. §102(b) as being anticipated by Adolfsson. Claims 1, 2, 4 - 7, 9 - 12, 14 - 17, 19 and 20 were further rejected under 35 U.S.C. §102(e) as being anticipated by Lincke et al. Claims 3, 8, 13 and 18 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and intervening claims.

The Examiner is thanked for the interview of February 13, 2006. In that interview, Claim 1 and the applied references were discussed. Specifically, Applicants' attorney stated that the last element of the independent claims are amended to explain the term "non-unique IP identification number". The Examiner stated that a new search will have to be undertaken to determine the allowability of the amended claims.

In response to the objection to the ABSTRACT, a new ABSTRACT is provided. Further, Applicants amended the SPECIFICATION to correct a minor typographical/grammatical error. In addition, and as mentioned above, Applicants amended the independent claims (i.e., Claims 1, 6, 11 and 16) to better claim the invention.

By this amendment, Claims 1 - 20 remain pending in the Application. For the reasons stated more fully below, Applicants submit that the claims are allowable over the

AUS920010896US1

Page 8 of 13

BEST AVAILABLE COPY

Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

applied references. Hence, reconsideration, allowance and passage to issue are respectfully requested.

As mentioned in the SPECIFICATION, data is generally transmitted on a TCP/IP network in packets. Before being transmitted, therefore, several headers may be added to the packets. One of the headers that may be added is the Internet protocol (IP) header. The IP header has a two-byte identification field that is used to facilitate packet fragmentations. For example, as a packet is traversing the network, routers may fragment the packet into smaller packets. To ascertain that a receiving computer system is able to reconstruct a packet after it has been fragmented in transit, a transmitting computer system will give the packet an identity by entering a number into the IP identification field. If fragmented, each fragment will retain the IP identification number in its IP header. When the receiving computer system receives the fragments, using the IP identification number along with other fields in the IP header, it will be able to reconstruct the packet.

The two-byte identification field allows for 65,536 unique IP packets to be generated before the IP identification numbers recycle. With the use of a Gigabit Ethernet, however, this number of packets can be generated within one (1) second. Presently, it is rather common to have fragment re-assembly timers of thirty (30) seconds. Thus, using a fragment re-assembly timer of thirty (30) seconds with the Gigabit Ethernet may result in two or more different IP packets having the same IP identification number on the network. Hence, fragments from the two or more different packets may be mixed together.

AUS920010896US1

BEST AVAILABLE COPY

Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

Consequently, a method of ascertaining that unique IP identification numbers are used on a Gigabit Ethernet network without modifying the IP identification field of the IP headers is needed. The present invention provides such method.

In accordance with the teachings of the invention, when sending IP packets using a Gigabit Ethernet, it is first determined whether a packet is permitted to be fragmented. (Note that if the "do-not fragment" bit in the IP header is set, the packet cannot be fragmented.) If the packet cannot be fragmented, a non-unique IP identification number is used with the packet. A non-unique identification number is a number that is used with all IP packets that are not to be fragmented.

Thus, this scheme frees up the rest of the IP identification numbers for packets that may be fragmented.

The invention is set forth in claims of varying scopes of which Claim 1 is illustrative.

> 1. A method of maintaining a two-byte identification field of an Internet protocol (IP) header of a packet, the packet being transmitted over a network, the method comprising the steps of:
> **determining whether a packet is permitted to be fragmented; and**
> **using a non-unique identification number in the IP header if the packet is not permitted to be fragmented, the non-unique identification number being a number that all packets that are not to be fragmented have as an IP identification number.** (Emphasis added.)

AUS920010896US1

Page 10 of 13

BEST AVAILABLE COPY

Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

The Examiner rejected the claims under 35 U.S.C.
§102(e) as being anticipated by both Adolfsson and Lincke
et al. Applicants respectfully disagree.

Adolfsson purports to teach a method and apparatus for
interfacing network peripheral devices with a browser.
According to the purported teachings of Adolfsson, a
computer for processing data transmitted by a network
enabling input output device (NEIOD) is used. The computer
presents data regarding at least one specific data
providing means on a screen within a page presented by a
web-browser running on the computer. The data providing
means can be a camera, a measuring transducer, a card
reader, a control network, equipment for automation, a
radiator etc. Some of the data providing means can be
controllable. If a data providing means presented on the
page is controllable, control means can be presented within
the page. The control means can be arranged for adjustment
by clicking, dragging or typing control parameters.

The data providing means can be connected to the NEIOD
directly, via a control unit, via a control network or a
computer network. The preferred network, in this case, is
a network based on transmission control protocol over
Internet protocol (TCP/IP) such as the Internet, Intranet
or other types of networks based on TCP/IP.

However, nowhere in the disclosure does Adolfsson
teach, show or so much as suggest a method of maintaining a
two-byte identification field of an IP header of a packet
by **determining whether a packet is permitted to be
fragmented;** and **using a non-unique identification number in
the IP header if the packet is not permitted to be**

AUS920010896US1

Page 11 of 13

BEST AVAILABLE COPY

Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

fragmented where the non-unique identification number being a number that all packets that are not to be fragmented have as an IP identification number as claimed.

Lincke et al. purport to teach a wireless, radio-frequency communications using a handheld computer. In accordance with the purported teachings of Lincke et al., a communications device is provided to a user with a sensory cue that informs the user of certain characteristics of a subsequent action that includes data communications. By informing the user of the data communication characteristics before the user initiates the data communication action, the teachings of Lincke et al. set user expectations regarding the data communication characteristics.

For example, when a portable communications device with a screen is used, a wireless link icon sensory cue may be displayed next to a user interface graphic element. The user interface graphic element is used to initiate the subsequent action. The user interface graphic element can be an operating system object having an embedded link type icon. The wireless link icon informs the user that the subsequent action corresponding to the user interface graphic element requires wireless communication and thus may be expensive and time-consuming.

However, as in the case of Adolfsson, Lincke et al. do not teach, show or suggest a method of maintaining a two-byte identification field of an IP header of a packet by *determining whether a packet is permitted to be fragmented;* and *using a non-unique identification number in the IP header if the packet is not permitted to be fragmented*

AUS920010896US1

Page 12 of 13

BEST AVAILABLE COPY

Appl. No. 10/087,939
Amdt. dated 02/14/2006
Reply to Office Action of 11/16/2005

*where the non-unique identification number being a number
that all packets that are not to be fragmented have as an
IP identification number* as claimed.

Consequently, Applicant submits that Claim 1, as well
as its dependent claims should be allowable. The other
independent claims (i.e., Claims 6, 11 and 16), which all
incorporate the emboldened-italicized limitations in the
above-reproduced Claim 1 and their dependent claims should
be allowable as well. Hence, Applicants once more request
reconsideration, allowance and passage to issue of the
claims in the application.

Respectfully Submitted

By: _____

Volel Emile
Attorney for Applicants
Registration No. 39,969
(512) 306-7969

AUS920010896US1

Page 13 of 13

BEST AVAILABLE COPY